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DC BRANCH

CONFINEMENT BEEF BARN

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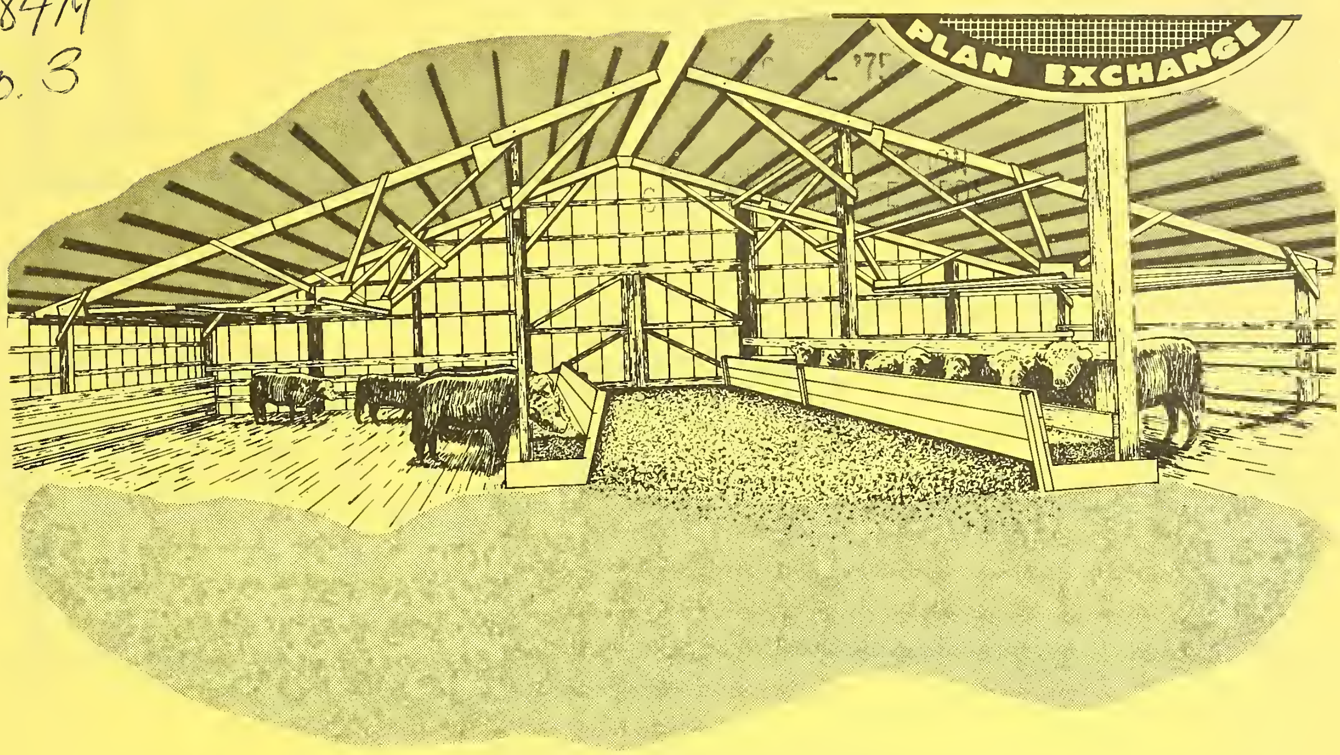
Cap. 3

COOPERATIVE FARM BUILDING
Plan No. 6156
PLAN EXCHANGE



The slotted-floor cold-confinement system for finishing feeder cattle uses a building with one side open except for a fence that keeps cattle inside. The air temperature in the building fluctuates according to outside temperature. No bedding is used, and manure falls through slots in the floor to a concrete tank beneath the floor. The illustration above is a typical slotted-floor cold-confinement beef barn.

Concrete tanks and slotted floors represent higher capital investments than the pole-type shed with a partially concreted lot. Many of the old facilities went through modernization and mechanization about 10 to 15 years ago. Now many of those shelters which are converted barns and lean-to sheds are getting quite old and need to be replaced.

Various university experiments, both winter and summer, show no advantage in rate of gain or feed efficiency for the cold-confinement system over the pole-type shed and partially concreted lot system. However, most barn owners agree that the slotted-floor cold-confinement system saves in bedding and reduces labor. They also agree that rate of gain is no better, but they get better feed efficiency.

When one probes a little deeper, the list of advantages gets longer. The extra cost of a slotted-floor cold-confinement building would have to be justified on the basis of the following advantages that may apply to a given farm:

- Surface runoff of waste products is practically eliminated, reducing the chance of polluting streams or wells.
- The use of slotted floors eliminates the cost of bedding and the labor for spreading it.
- Protection from sun and rain maintains the fertilizer value of the waste. This is an important consideration if waste is spread on fields.
- Less labor is needed to handle manure.
- Flies are reduced.
- Cattle are more docile and easier to handle when sorted or treated.
- Cattle are usually clean and seem to be favored by packers because of a 1- or 2-percent better yield.
- The herdsman can do a better job of observing cattle, especially during bad weather.
- Less land is needed, and site development is easier.

This barn has a center drive-through feed delivery alley which also serves as the cattle-handling alley.

Washington, D.C.

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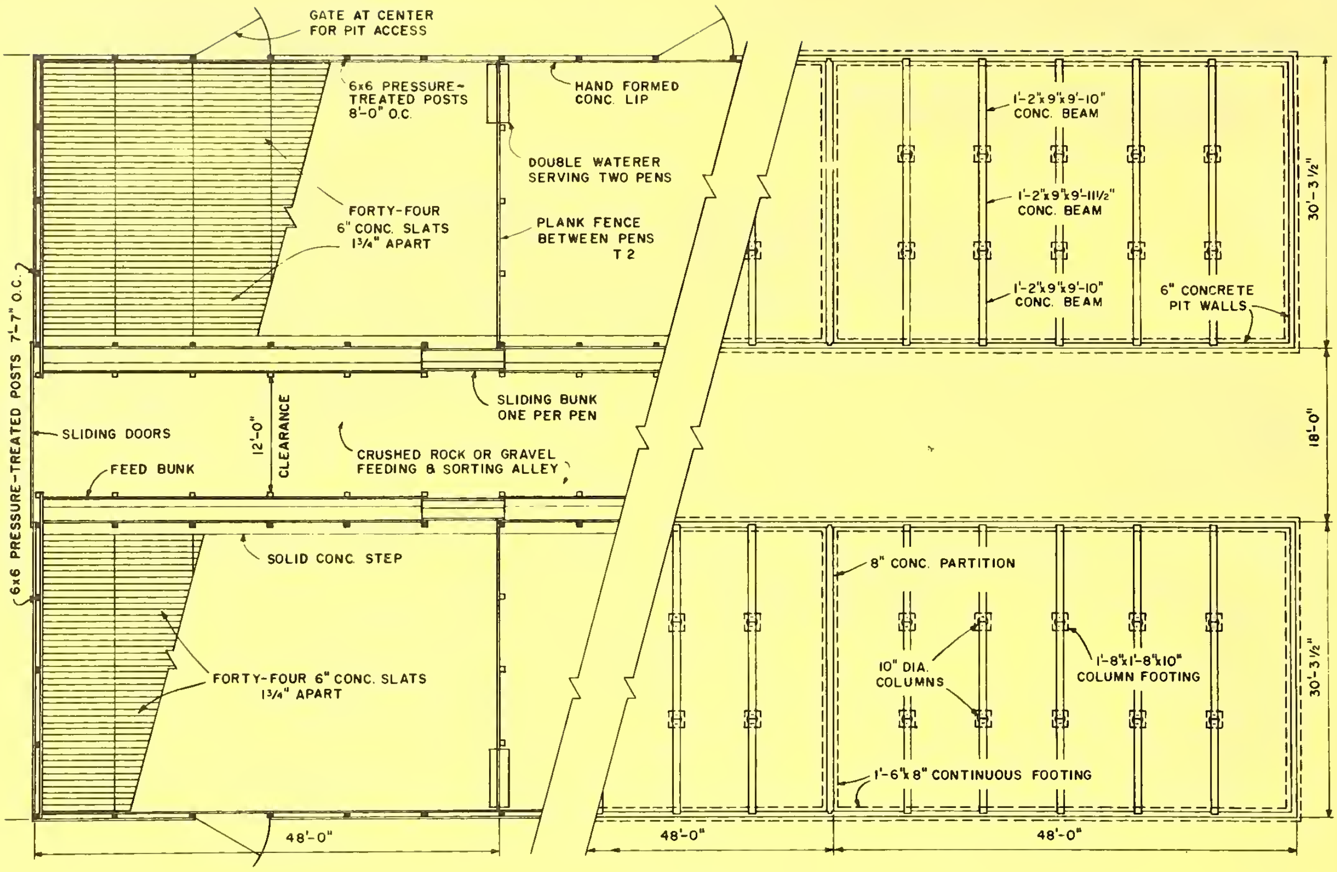
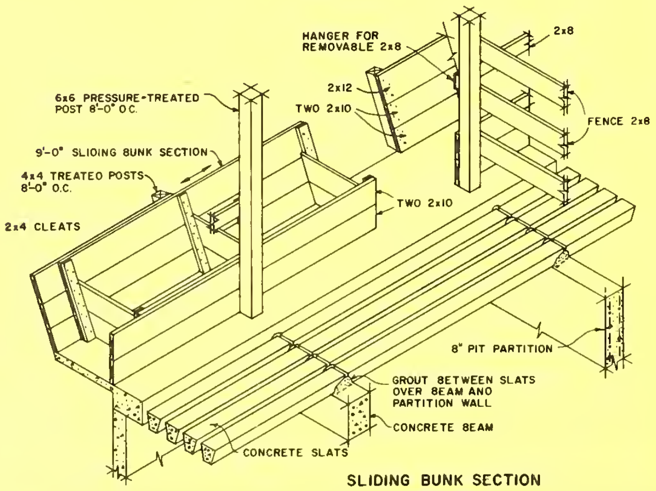

GATE AT CENTER FOR PIT ACCESS
6x6 PRESSURE-TREATED POSTS 8'-0" O.C.
HAND FORMED CONC. LIP
DOUBLE WATERER SERVING TWO PENS
FORTY-FOUR 6" CONC. SLATS 1 3/4" APART
PLANK FENCE BETWEEN PENS
T 2
6x6 PRESSURE-TREATED POSTS 7'-7" O.C.
SLIDING DOORS
FEED BUNK
12'-0"
CLEARANCE
SLIDING BUNK ONE PER PEN
CRUSHED ROCK OR GRAVEL FEEDING & SORTING ALLEY
SOLID CONC. STEP
FORTY-FOUR 6" CONC. SLATS 1 3/4" APART
48'-0"
1'-2"x9"x9'-10" CONC. BEAM
1'-2"x9"x9'-11 1/2" CONC. BEAM
1'-2"x9"x9'-10" CONC. BEAM
6" CONCRETE PIT WALLS
30'-3 1/2"
18'-0"
8" CONC. PARTITION
10" DIA. COLUMNS
1'-8"x1'-8"x10" COLUMN FOOTING
1'-6"x8" CONTINUOUS FOOTING
30'-3 1/2"
48'-0"
48'-0"

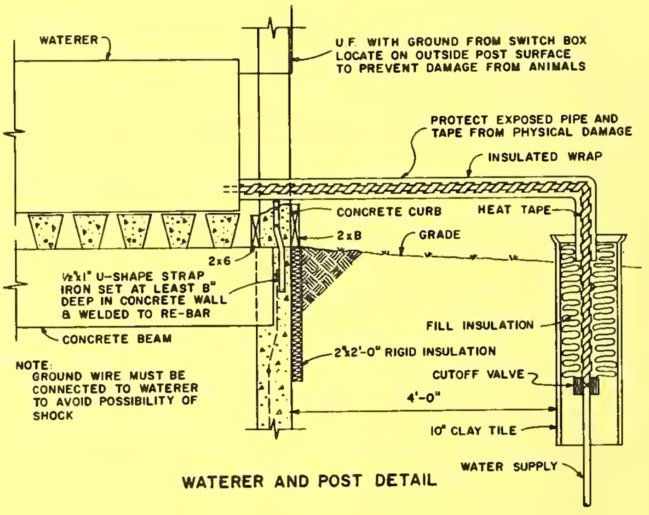
PARTIAL FOUNDATION AND FLOOR PLAN

An opening, therefore, is provided in the feed bunk to allow for the passage of animals from their pens into the alley.

One slide bunk is provided for each pen as shown in the partial foundation and floor plan. An isometric view of a sliding bunk section is shown below.


HANGER FOR REMOVABLE 2x8
2x8
6x6 PRESSURE-TREATED POST 8'-0" O.C.
2x12
TWO 2x10
FENCE 2x8
9'-0" SLIDING BUNK SECTION
4x4 TREATED POSTS 8'-0" O.C.
TWO 2x10
2x4 CLEATS
8" PIT PARTITION
GROUT BETWEEN SLATS OVER BEAM AND PARTITION WALL
CONCRETE BEAM
CONCRETE SLATS

SLIDING BUNK SECTION
ISOMETRIC


WATERER
U.F. WITH GROUND FROM SWITCH BOX LOCATE ON OUTSIDE POST SURFACE TO PREVENT DAMAGE FROM ANIMALS
PROTECT EXPOSED PIPE AND TAPE FROM PHYSICAL DAMAGE
INSULATED WRAP
CONCRETE CURB
HEAT TAPE
2x8
GRADE
2x6
1/2"x1" U-SHAPE STRAP IRON SET AT LEAST 8" DEEP IN CONCRETE WALL & WELDED TO RE-BAR
CONCRETE BEAM
FILL INSULATION
2"x2'-0" RIGID INSULATION
CUTOFF VALVE
4'-0"
10" CLAY TILE
WATER SUPPLY

NOTE:
GROUND WIRE MUST BE CONNECTED TO WATERER TO AVOID POSSIBILITY OF SHOCK

WATERER AND POST DETAIL

Complete working drawings may be obtained from the extension agricultural engineer at your State university. There may be a small charge to cover cost of printing.

If you do not know the location of your State university, send your request to Agricultural Engineer, Extension Service, U.S. Department of Agriculture, Washington, D.C. 20250. He will forward your request to the correct university.

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